PUBLIC HEALTH REPORT

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Cancer in California— New Developments

AN ESTIMATED 32,000 new cases of cancer will occur in the three-year period 1969-1971 in five Bay Area counties, if predictions made in advance of the Third National Cancer Survey, which is soon to begin, are borne out.

In this survey under the sponsorship of the National Cancer Institute, medical schools, medical associations, health departments, voluntary health agencies and other organizations will study a representative cross-section of communities across the nation. Included is the San Francisco-Oakland Standard Metropolitan Statistical Area, comprising San Francisco, Alameda, Contra Costa, Marin and San Mateo Counties. The California Medical Association's Council has endorsed the Bay Area survey in which more than 100 hospitals and 7,000 physicians will participate.

As contrasted with earlier national studies which were limited to demographic variables, the Third National Survey will produce a detailed analysis of cancer incidence rates, with several ad hoc reports on special problems. It is expected to provide the most extensive, comprehensive and accurate body of data ever collected on cancer and it will be an important data measure for years to come.

Data from earlier cancer surveys are out-of-date, since patterns of cancer have changed dramatically with the times. "Trends in Cancer Mortality, California, 1910-1965," issued by the State Health Department's California Tumor Registry shows that the lung cancer mortality rate for males has increased from three per 100,000 in 1920 to 42 in 1965. On the other hand, stomach cancer mortality for men has decreased in one generation, from 38 per 100,000 in 1930 to ten in 1965.

The most striking change in age-adjusted cancer death rates for women is the decrease in mortality from cancer of the uterus, from 34 per 100,000 in 1920 to 11 in 1965. The mortality rate from cancer of the stomach for women also has decreased, from 26 per 100,000 in 1930 to six in 1965. Although lung-cancer mortality in women is only one-fifth that of the male rate, the rate of increase in lung cancer mortality for women was twice that of men from 1960 to 1965, namely from six to eight per 100,000 women compared with 36 to 42 per 100,000 men.

The Bay Area Cancer Survey will be carried out by the California Tumor Registry (CTR), a central registry of 57 California hospitals, which obtains abstracts of 20,000 new cancer cases a year. This includes about one-third of newly-diagnosed cancer cases in California annually and all cases occurring in Alameda County. The CTR now has more than 300,000 cases on file and follow-up of patients is 96 percent complete.

CTR data on cancer mortality, morbidity and survival in California are useful in the planning of cancer programs throughout the state under the California Regional Medical Programs for heart disease, cancer and stroke, established by PL 89-239. A 1968 CTR publication, "Cancer Mortality, Morbidity and Survival in California," for example, provides data pertaining to the whole state and to the eight areas into which California is subdivided, each of which centers on a medical school.

The report forecasts new cancer cases by primary site and age expected in the various geographic areas, based on incidence rates generated by the Alameda County Cancer Registry, a unit

of the CTR. Expected numbers of new cases for California, the regional areas and their component counties were computed by applying age-sex-site specific incidence rates for Alameda County for 1950-64 to the estimated age-sex specific populations of each county for 1967.

Data such as these are indispensable in planning for provision of medical and other services to cancer patients and their families. It is essential to predict, for instance, what kinds of cancer will occur in each sex and at what age; what kind of treatment will be required; where should appropriate treatment facilities be located for most efficient management; how many man-years and woman-years of productivity will be lost and how will families and communities bear the costs.

Success of the cancer survey will largely depend on cooperative efforts of the medical, hospital and health community, and data acquired from the study will make possible better treatment and control of cancer throughout California in the years to come.

HYPERTHERMIA DURING ANESTHESIA IN CHILDREN

"Monitoring [during anesthesia] is probably more important in children than in adults because it's sometimes more difficult to keep track of what the cardiovascular-respiratory systems are doing. A precordial or esophageal stethoscope is a *sine qua non.* In this day and age, if one wants to be sure that he is not going to overdose the patient or . . . get him into difficulty, monitoring the body temperature is of considerable importance. One can get into considerable difficulty in the newborn and the infant with a hypothermia which can develop inadvertently during the course of anesthesia. This is particularly likely to occur in air-conditioned operating rooms. In older children, one has to be aware of the possibility that occasionally they may develop a rapid, fulminant type of hyperthermia for no apparent reason. We have collected 68 patients who developed hyperthermia in this way; and of the 68, 90 per cent failed to recover. . . . There are now a number of cases . . . in the literature where patients have developed a fulminant hyperthermia and have been difficult to resuscitate. Most of the time, the difficulty in resuscitation occurred because hyperthermia was not recognized early enough. These people were not monitored with a body temperature monitor. The first thing . . . noted was that the patient's skin was hot or that the carbon dioxide absorber was hot. When body temperature was taken, it was in excess of 108 or 109 degrees Fahrenheit; and the irreversible process had begun. So if one wants to nip this in the bud . . . , the important thing is to monitor body temperature; this will give some useful information about the degree of metabolism of the patient from moment to moment."

—C. R. STEPHEN, M.D., Dallas

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